

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of:  
Bruce G. Woodward, et al

Serial No.: 10/708,920

Filed: March 31, 2004

For: Hierarchical Entitlement System with  
Integrated Inheritance and Limit Checks

Examiner: Madamba, Clifford B.

Art Unit: 3696

**REPLY BRIEF**

Mail Stop Appeal  
Commissioner for Patents  
P.O. Box 1450  
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Sir:

**REPLY BRIEF ON BEHALF OF BRUCE G. WOODWARD, ET AL**

This is an appeal from the Final Rejection mailed August 25, 2009, in which currently-pending claims 1-22 and 25-45 stand finally rejected. Appellant filed a Notice of Appeal on December 30, 2009 and an Appeal Brief on February 24, 2010. This Reply Brief is submitted electronically in response to the Examiner Answer mailed on April 1, 2010.

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## **1. STATUS OF CLAIMS**

Claims 1-22 and 25-45 are pending in the subject application and are the subject of this appeal. An appendix setting forth the claims involved in the appeal is included as Section 8 of Appellant's previously filed Appeal Brief.

## **2. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

The grounds of rejection to be reviewed on appeal are stated in Appellant's Appeal Brief filed on February 24, 2010. However, Appellant notes that the Examiner has now referenced Barkley in the discussion of Claims 26, 27, 30, 33 and 41 at pages 22-26 of the Answer. As the Final Rejection of these claims did not include Barkley, Appellant's Grounds for Appeal indicate that these claims are rejected based on Win and Rowe (and not Barkley). Accordingly, Appellant respectfully requests that the Examiner clarify the basis for rejection of claims 26, 27, 30, 33 and 41.

## **3. ARGUMENT IN REPLY TO ANSWER**

### **A. First Ground: Claims 1, 4-5, 7-8, 10-16, 18-22 and 25-45 rejected under 35 U.S.C. 103(a)**

In the Answer the Examiner continues to argue that Win's role based administrative roles are somehow comparable to the "hierarchical entitlement structure with inheritance for specifying entitlements for performing financial transactions" of Appellant's claimed invention. However, Win makes no mention of any "hierarchical entitlement structure with inheritance", nor does Win teach or suggest how such an entitlement structure is used to specify limits for performing financial transactions. Respectfully, Appellant does not believe that the mere fact that users of a given organization "have a relationship with an organization and play various roles" (as quoted at page 17 of the Examiner Answer) teaches or suggests anything at all comparable to the hierarchical entitlement structure of Appellant's claimed invention. Win indicates that roles may reflect various relationships of users to an organization, such as, for example, employee, customer, distributor or supplier. However, Win makes provides no teaching or suggestion of organizing these roles into a "hierarchical entitlement structure" with

inheritance amongst the roles comparable to Appellant's claimed invention.

Additionally, the Examiner appears to suggest (e.g., at page 15 of the Final Rejection) that the mere fact that one of the roles mentioned by Win is that of "financial analyst" teaches that Win's solution can be used for specifying entitlements for performing financial transactions. Appellant respectfully disagrees. For one thing, Win makes no mention of handling financial transactions (other than this mention of a user having a "financial analyst" role). Also, the Examiner admits that Win does not provide any teaching of specifying limits for performing financial transactions. Thus, as Win does not provide these teachings, one must look to Rowe as providing the corresponding teachings.

The Examiner relies on Rowe for its discussion of limits; however the limits described by Rowe are not associated with roles, and certainly are not associated with anything comparable to the "hierarchical entitlement structure with inheritance" of Appellant's invention. Instead, the limits described by Rowe are associated with a particular account. For example, Rowe's method includes "assigning a value limit for the account" (Rowe's Abstract quoted at page 18 of the Examiner Answer). In contrast to Rowe's limits which are tied to particular accounts, Appellant's claimed invention specifically indicates that the permissions and limits to perform financial transactions are associated with entitlement groups as indicated, for example, in the following claim limitations of Appellant's claim 1:

**...wherein each entitlement group has specified permissions to perform financial transactions, limits on performance of said financial transactions, and membership of each user;**

(Appellant's claim 1, emphasis added)

Respectfully, Rowe's teachings are not at all analogous as (among other reasons), the limits described by Rowe are not associated with entitlement groups or roles.

Appellant's claimed invention also enables both per-transaction and cumulative limits to be defined and enforced as provided, for instance, in the claim limitations of Appellant's claims 8 and 32. In this respect, Appellant's invention allows, for example,

limits of \$500 per transaction and a maximum of \$2,000 per week to be applied to a given entitlement group. The Examiner again relies on the same teachings of Rowe (paragraph 40 of Rowe) that discusses a single "maximum funds value" assigned to an account as teaching both per-transaction and cumulative limits. However, Rowe's maximum funds value is clearly a single value and does not enforce both per-transaction and cumulative limits. The Examiner then goes on to argues that assigning an expiration date to the account is somehow analogous as "it serves the same purpose as limiting the number of transactions permitted for the account" (Examiner Answer, page 19). Appellant again respectfully disagrees. For one thing, an expiration date on a given account does not limit the number of transactions a user can make. Rowe's solution does not prohibit a user from performing multiple transactions on the account prior to the expiration date and places no limit on the size of any transaction other than the single "maximum value limit". Additionally, Appellant's claim limitations are not focused on the number of transactions in a given period of time, but rather on the value of each transaction and/or the cumulative value of transactions over a given period of time. As Rowe's value limit is tied to a given account it also would not preclude a given user from performing transactions on other accounts. Thus, Rowe's teachings of an account that has a maximum value limit and an expiration date have little or no relation to the features of Appellant's claimed invention.

Appellant also notes that in the Answer the Examiner has now referenced Barkley in the discussion of claims 26, 27, 30, 33 and 41 at pages 22-16 of the Answer. However, the Final Rejection of these claims did not include Barkley and Appellant respectfully requests that the Examiner clarify the basis of rejection of these claims as discussed above in Section 2 of this Reply Brief. However assuming Barkley is applicable, the combination of Win, Row and Barkley is distinguishable for the reasons noted below (and in the Appeal Brief) in Appellant's **Second Ground** of Appeal.

All told, Win and Rowe, taken singly or in combination, do not teach or suggest all the claim limitations of Appellant's claimed invention. Therefore, it is again respectfully submitted that claims 1, 4-5, 7-8, 10-16, 18-22 and 25-45 distinguish over the cited references and the Section 103 rejection should not be sustained.

**B. Second Ground: Claims 2-3, 6, 9 and 17 rejected under 35 U.S.C. 103(a)**

The hierarchical entitlement structure of Appellant's solution also is distinguishable from the cited prior art in that Appellant's solution provides for "top down" inheritance in which inferior (child) entitlement groups in the structure inherit permissions from superior groups above them in the hierarchy. The Examiner argues at pages 22-23 of the Answer that Barkley provides equivalent teachings as superior roles in the organization have greater access privileges compared to roles occupying lower levels in the organization. On this basis, the Examiner argues that Barkley teaches "top down" inheritance. However, review of the actual teachings of Barkley reveals Barkley provides for bottom-up, not top-down inheritance. This is clearly shown, for example, by the following teachings of Barkley that are quoted by the Examiner in the Answer:

The capability for one role to inherit another role – that is, for example while members of "manager" have their own permissions, they may also inherit those of "subordinate" is a common feature of RBAC models. Such a "role hierarchy" is implemented by a strict partial ordering on the set of roles. One can think of role inheritance as the capability for one role to be authorized for (or "included in") another role" (column 9, lines 48-55).

(emphasis added in Examiner Answer, pages 22-23)

The above quoted teachings are an example of bottom-up inheritance as the superior roles (e.g., "manager") inherit permissions from subordinate roles (e.g., "subordinate"). This is not Appellant's approach.

Appellant's claimed invention provides for inheritance by the subordinate (child entitlement group) from the superior (parent entitlement group). Additionally, such inheritance is structured negatively so as to apply restrictions as one goes down the hierarchical entitlements structure (see e.g., Appellant's specification, paragraph [0045]). With Appellant's solution the root node at the top of the inheritance structure has all permissions and may perform all functions in the system (Appellant's specification, paragraph [0045]). As the hierarchy is traversed downward, additional restrictions are applied as described, for example, in the following limitations of Appellant's dependent claim 3:

The method of claim 2, wherein said step of defining a plurality of entitlement groups includes restricting permissions inherited by an entitlement group from its parent entitlement group in said hierarchical entitlement structure.

(Appellant's claim 3, emphasis added)

When one compares the referenced teachings of Barkley to the specific limitations of Appellant's claims it is clear that Barkley and Appellant take a fundamentally different approach to inheritance. Barkley takes a bottom-up approach in which superiors (e.g., managers) inherit permissions from subordinates (and the superiors then also typically have additional permissions of their own). Appellant utilizes a top down approach in which subordinates (child entitlement groups) inherit permissions from superiors (parent entitlement groups) in the hierarchical structure.

In summary, Win, Rowe and Barkley, even if combined, are distinguishable for the reasons set forth above and in Appellant's previously filed Appeal Brief. Therefore, it is again respectfully submitted that claims 2-3, 6, 9 and 17 distinguish over the cited references and the Section 103 rejection should not be sustained.

### **C. Conclusion**

In view of the above remarks and those set forth in the Appeal Brief previously filed by Appellant in this case, it is respectfully submitted that the Examiner's rejection of Appellant's claims under 35 U.S.C. Section 103 should not be sustained. If needed, Appellant's undersigned attorney can be reached at (925) 465-0361.

Respectfully submitted,

Date: May 21, 2010

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